



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,620	12/05/2003	Hiroaki Kakimoto	01306.000120	9123
5514	7590	08/23/2005	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			ROYER, WILLIAM J	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	
			2852	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/727,620

Applicant(s)

KAKIMOTO, HIROAKI

Examiner

William J. Royer

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12052003</u> . | 6) <input type="checkbox"/> Other: ____. |

This application is in condition for allowance except for the following formal matters:

Drawings

The drawings are objected to because of the following informalities:

In Figure 3, change reference numeral "126" to --- 12b ---.

In Figure 3, reference numeral "11d" is used to identify two different rollers. One of the rollers should be labeled --- 10d --- instead of "11d".

Figures 3-8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Further, Figures 1-10 are objected to because every line, number and letter are not durable, clean, black, sufficiently dense and dark, and uniformly thick and well-defined.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The disclosure is objected to because of the following informalities:

In Figures 1 and 2, reference numeral "73" is shown, however, reference numeral "73" does not appear to be identified in the specification.

On page 2, line 1, after "charger" insert --- 2 ---.

On page 2, line 1, after "scanner" insert --- 3 ---.

On page 2, line 4, after "apparatus" insert --- 7 ---.

On page 2, line 9, after "apparatus" insert --- 5 ---.

On page 3, line 5, change "support" to --- supporting ---.

On page 3, line 7, "developing device 23 is mounting a first" should be rewritten in a more grammatically correct form.

On page 3, line 12, change "move" to --- moves ---.

On page 3, line 24, after "to" insert --- a ---.

On page 4, line 7, change "charger charges the drum" to --- charger 2 charges the photosensitive drum 1 ---.

On page 4, line 15, change "carriers" to --- rollers ---.

On page 4, line 22, change "carriers 10a, 11a" to --- rollers 10b, 11b ---.

On page 4, line 23, change "4a" to --- 4b ---.

On page 5, lines 2 and 4, change "P" to --- 102 ---.

On page 5, lines 4 and 19, after "body" insert --- 6 ---.

On page 5, line 6, change "the cassette" to --- a cassette ---.

On page 5, line 10, change "the conveyance" to --- a conveyance ---.

On page 5, line 16, after each occurrence of "transfer material" insert --- 102 ---.

On page 5, lines 22 and 23, after "material" insert --- P1 ---.

On page 5, line 22, after "apparatus" insert --- 110 ---.

On page 5, line 23, after "via" delete --- a ---.

On page 5, line 24, change "roller" to --- rollers ---.

On page 6, lines 1-2, change "is mounting" to --- has ---.

On page 6, line 9, change "the rotary" to --- a rotary ---.

On page 6, line 10, change "of the" to --- on the ---.

On page 6, line 11, after "drum" insert --- 41 ---.

On page 6, line 11, change "the developing" to --- a developing ---.

On page 6, lines 14 and 15, after each occurrence of "rotary body" insert -- 40 --.

On page 6, lines 19 and 23, after "rollers" insert --- 44, 45 ---.

On page 6, line 20, after "first developing sleeve" insert --- 46 ---.

On page 6, line 20, after "second developing sleeve" insert --- 47 ---.

On page 6, line 27, change "the first screw 50 and the second" to --- a first screw 50 and a second ---.

On page 7, line 17, after "developer" insert --- 57 ---.

On page 8, lines 2, 3 and 6, after "developer" insert --- 57 ---.

On page 8, line 12, change "of the" to --- of a ---.

On page 8, line 15, after "screw" insert --- 61 ---.

On page 8, line 16, after "screw" insert --- 62 ---.

On page 8, lines 17 and 23, after "toner" insert --- 66 ---.

On page 8, line 27, after "chamber" insert --- 64 ---.

On page 9, lines 1, 5, 7 and 9, after "chamber" insert --- 63 ---.

On page 9, lines 2 and 5, delete --- first ---.

On page 9, line 3, after "chamber" insert --- or first chamber ---.

On page 9, line 7, after "path" insert --- 68 ---.

On page 9, line 8, change "stirring chamber" to --- stirring chamber or second chamber 64 ---.

On page 9, line 12, after "drum" insert --- 41 ---.

On page 9, line 13, after "device" insert --- 42 ---.

On page 9, line 18, change "44" to --- 46 ---.

On page 9, line 19, after "developer" insert --- 571 ---.

On page 9, line 21, after "and" insert --- is ---.

On page 10, lines 1, 4, 6, 12, 14 and 21, after "developer" insert --- 571 ---.

Art Unit: 2852

On page 10, line 2, change "44" to --- 46 ---.

On page 10, line 3, after "sleeves" insert --- 46, 47 ---.

On page 10, line 10, change "developer enter" to --- developer 571 entering ---.

On page 10, line 12, change "second developing chamber" to --- stirring chamber ---.

On page 10, line 13, after "572" insert --- is ---.

On page 10, lines 16 and 27, after "space" insert --- 56 ---.

On page 10, line 17, after "rollers" insert --- 48, 49 ---.

On page 10, line 18, after "body" insert --- 40 ---.

On page 10, line 22, after "screws" insert --- 50, 51 ---.

On page 10, line 24, after "rollers" insert --- 44, 45 ---.

On page 10, line 25, after "drum" insert --- 41 ---.

On page 11, line 1, after "rollers" insert --- 48, 49 ---.

On page 11, line 6, after "developer" insert --- 573 ---.

On page 11, lines 7 and 9, after "chamber" insert --- 55 ---.

On page 11, line 12, after "space" insert --- 56 ---.

On page 11, lines 14, 15 and 20, change "46" to --- 47 ---.

On page 11, line 23, delete --- developing ---.

On page 13, line 7, delete --- restricting member ---.

On page 14, line 3, change "developing apparatus" to --- developing device ---.

On page 14, line 19, after "developing apparatus" insert --- or developing device - --.

On page 15, line 11, change "part of the" to --- part of a ---.

On page 15, lines 16-17, change "the developing apparatus agent" to ---
developing agent ---.

On page 15, lines 17 and 21, after "space" insert --- 56 ---.

On page 15, lines 20 and 27, after "developer" insert ---57 ---.

On page 15, line 25, after "device" insert --- 42 ---.

On page 16, lines 2, 4, 5, 25 and 26, after "developer" insert --- 57 ---.

On page 16, line 2, change "used" to --- use ---.

On page 16, line 3, change "on the" to --- on a ---.

On page 16, line 3, after "drum" insert --- 41 ---.

On page 16, line 14, change "second developing" to --- stirring ---.

On page 16, line 16, change "the second" to --- a second ---.

On page 16, line 20, after "space" insert --- 56 ---.

On page 16, line 22, after "diaphragm" insert --- 53 ---.

On page 16, lines 23 and 24, after "developing chamber" insert --- 54 ---.

On page 16, line 24, after each occurrence of "stirring chamber" insert --- 55 ---.

On page 17, line 3, change "polarity 482 and S1" to --- magnetic polarity 482 and
S1 magnetic polarity ---.

On page 17, lines 7, 9 and 26, after "developer" insert --- 57 ---.

On page 17, lines 7 and 9, before "polarity" insert --- magnetic ---.

On page 17, line 15, delete --- developing ---.

On page 17, lines 19 and 27, after "member" insert --- 70 ---.

Art Unit: 2852

On page 18, line 1, after "roller" insert --- 44, 45 ---.

On page 18, line 5, after "sleeve" insert --- 46, 47 ---.

On page 18, line 5, before "even" insert --- 484, 494 ---.

On page 18, line 8, after "member" insert --- 70 ---.

On page 18, lines 10, 12, 13, 16, 20 and 21, after "developer" insert --- 57 ---.

On page 19, lines 10-11, 12 and 17, after "developing chamber" insert --- 63 ---.

On page 19, lines 11, 16 and 17, after "stirring chamber" insert --- 64 ---.

On page 19, line 11, after "diaphragm" insert --- 53 ---.

On page 19, line 23, after "roller" insert --- 44 ---.

On page 19, lines 24 and 26, after "roller" insert --- 45 ---.

On page 19, line 25, change "54" to --- 56 ---.

On page 20, lines 4 and 8, change "54" to --- 56 ---.

On page 20, line 7, after "rollers" insert --- 44, 45 ---.

Appropriate correction is required.

Claim Objections

Claims 1 and 8 are objected to because of the following informalities:

Claim 1, line 4, change "portioning" to --- dividing ---.

Claim 1, lines 7 and 9, change "with" to --- within ---.

Claim 1, line 12, after "generating" insert --- a ---.

Claim 1, line 14, change "side," to --- side; and ---.

Claim 1, line 17, change "is" to --- being ---.

Claim 8, line 2, change "portioning" to --- dividing ---.

Appropriate correction is required.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Allowable Subject Matter

Claims 1-9 are allowable over the prior art of record because the prior art of record fails to teach or suggest providing a developing apparatus including: a developing container for containing a magnetic developer having a first chamber and a second chamber constituting a circulation path of the developer; the first chamber being disposed on an upper side of the second chamber; a first developing member provided in the first chamber; a second developing member provided in the second chamber; a magnetic field generating means for generating a magnetic field for transferring the developer between the first developing member and the second developing member on an image carrier side; and a restricting member for restricting entry of the developer in the developing container to a space between the first developing member and the second developing member, the restricting member being disposed in a non-contacting manner to the first developing member and the second developing member.

Relevant Prior Art

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

White discloses a multiple brush developer applying apparatus that includes a toner diverter blade and multiple chambers.

Abreu et al disclose a developer unit that includes three augers in three different chambers.

Takeda discloses a developer apparatus that is provided with a developer feed regulator.

Hirobe et al and Hirobe each disclose a developing device having first and second chambers and first and second developing sleeves.

Contact Information

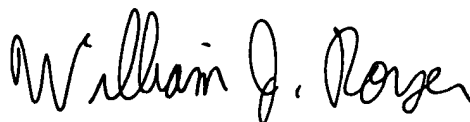
Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Royer whose telephone number is (571) 272-2140. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley can be reached on (571) 272-2136. The fax phone

Art Unit: 2852

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "William J. Royer". The signature is fluid and cursive, with the first name "William" and last name "Royer" clearly legible.

William J. Royer
Primary Examiner
Art Unit 2852

wjr
August 22, 2005